

OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



KINGSBRIDGE GRAND Ch #1 [GTT224-468] CARRIER 18365(1) Chiller

COMP OIL (POE) ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

The zinc level is high. the operation of this unit should be reviewed closely by a service engineer. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Area

Wear

Zinc, copper and lead ppm levels are noted. The elevated copper reading suggests the effects of oil migration through the evaporator (oil loss from the compressor) possibly occurring during intervals of operation at low cooling load conditions.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GTT0003255		
Sample Date		Client Info		26 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>8	<1		
Chromium	ppm	ASTM D5185(m)	>2	0		
Nickel	ppm	ASTM D5185(m)		<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>3	<1		
Lead	ppm	ASTM D5185(m)	>2	9		
Copper	ppm	ASTM D5185(m)	>8	41		
Tin	ppm	ASTM D5185(m)	>4	<1		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<1		
Barium	ppm	ASTM D5185(m)	5	0		
Molybdenum	ppm	ASTM D5185(m)	5	0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)	5	<1		
Calcium	ppm	ASTM D5185(m)	5	0		
Phosphorus	ppm	ASTM D5185(m)	400	192		
Zinc	ppm	ASTM D5185(m)	5	3 2		
Sulfur	ppm	ASTM D5185(m)	100	31		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	30		
Sodium	ppm	ASTM D5185(m)		0		
Potassium	ppm	ASTM D5185(m)	>20	<1		
ppm Water	ppm	ASTM D6304*	>100	10		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.40	0.10		



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VISUAL		method	limit/base	current	history1	history2		
White Metal	scalar	Visual*	NONE	NONE				
Yellow Metal	scalar	Visual*	NONE	NONE				
Precipitate	scalar	Visual*	NONE	NONE				
Silt	scalar	Visual*	NONE	NONE				
Debris	scalar	Visual*	NONE	NONE				
Sand/Dirt	scalar	Visual*	NONE	NONE				
Appearance	scalar	Visual*	NORML	NORML				
Odor	scalar	Visual*	NORML	NORML				
Emulsified Water	scalar	Visual*	>0.01	NEG				
Free Water	scalar	Visual*		NEG				
FLUID PROPERTIES		method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	68	66.7				
SAMPLE IMAGES		method	limit/base	current	history1	history2		
Color					no image	no image		
Bottom					no image	no image		
GRAPHS								



Sample No. : GTT0003255 Received : 28 Jun 2024 1040 South Service Road Lab Number : 02644726 Tested : 04 Jul 2024 Stoney Creek, ON Unique Number : 5802265 Diagnosed : 04 Jul 2024 - Bill Quesnel CA L8E 6G3 Test Package : IND 2 (Additional Tests: KF, TAN Man) Contact: Service Manager To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.

Report Id: GTT0000376 [WCAMIS] 02644726 (Generated: 07/04/2024 12:21:44) Rev: 1

Contact/Location: Service Manager - GTT0000376 Page 2 of 2

Carrier Commercial Services

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